

Claims

1. A package assembly for placing it on a surface and for storing and/or delivering substances, preferably dental substances, comprising:
 - a) at least one container means (2) with at least one base (1) and at least one lid (3); and
 - b) at least one hinge means (4) connecting the base (1) and the lid (3);
 - c) wherein the base (1) and the lid (3) comprise at least a first and second lever means (12,32),
 - f) the first and second lever means (12,32) are provided at the container (2) essentially on the side of the hinge means (4) and,
 - g) a projection of the first lever means (12) onto the surface and the second lever means (32) extend with their free ends essentially in a direction away from the hinge means (4);
 - f) and wherein the container means (2) can be opened or the lid (3) can be removed from the base (1) by moving the ends of the first and second lever means (12; 32) towards to each other.
2. The package assembly according to claim 1, wherein the hinge means (4) is provided between the first and second lever means (12,32).

3. The package assembly according to claim 1 or 2, wherein the container means (2) comprises a first end (21) next to the base (1) and a second end (22) next to the lid (3), which is adapted for an air tight closing of the container means (2) at the second end (22).
4. The package assembly according to claim 1, 2 or 3, wherein the end of the second lever means (32) is bent in a direction away from the first lever means (12).
5. The package assembly according to claim 1, 2, 3 or 4, wherein the container means (2) is pre-filled with at least one dental substance.
6. The package assembly according to any of the preceding claims, wherein the assembly is for disposable use.
7. The package assembly according to any of the preceding claims, wherein the material for the base (1) and/or the lid (3) comprises plastics material.
8. The package assembly according to any of the preceding claims, wherein the base means (1) and the lid means (3) are molded, preferably injection molded.
9. The package assembly according to any of the preceding claims, wherein the base means (1) and the lid means (3) are manufactured by deep drawing a film and/or a foil.

10. The package assembly according to any of the preceding claims, wherein the base (1), the lid (3) and the hinge (4) are integrally molded.
11. The package assembly according to any of the preceding claims, wherein the base (1), the lid (3) are molded as one piece with a weakened line (5) for later separating the lid (3) from the base (1).
12. The package assembly according to any of the preceding claims, wherein the hinge (4) is a living hinge or film hinge.
13. The package assembly according to any of the preceding claims, wherein the base (1) and/or the lid (3) are manufactured with an opening for filling the container means (2) after manufacturing it and for sealing with a sealing means (6).
14. The package assembly to any of the preceding claims, wherein the package assembly is molded by one shot technique.
15. The package assembly according to any of the preceding claims, wherein the container means (2) is sealed with a sealing means (6) at the fist end (21).
16. The package assembly according to claim 15, wherein the sealing means (6) is a foil and/or a plug and/or part of the base means (1).

17. The package assembly according to claim 15, wherein the sealing means (6) is a foil and/or a plug and/or part of the lid.
18. The package assembly according to any of the preceding claims, wherein the container means (2) comprises in the initial state at least one dental substance and the container means (2) is closed at the first end (21) by the lid (3) wherein the boundary between said lid (3) and said second end (22) is sealed with a breakable seal (5).
19. The package assembly according to any of the preceding claims, wherein the base (1) comprises a front (13) facing the lid (3) and a back (11) facing away from the lid, wherein said back (11) is adapted for being the footprint of the package assembly.
20. The package assembly according to claim 19, wherein the back (11) comprises a non-skidding and/or sticky layer for providing a save standing of the package assembly on a surface.
21. The package assembly according to claim 19, wherein the assembly further includes a ring member, to enable a user to wear the package assembly like a ring on one or more fingers.
22. The package assembly according to claim 19 or 20, wherein at least the back (11) is made of soft elastic material.

23. The package assembly according to claim 16, wherein the base (1) consisting of the front (13) and the back (11), is manufactured by two shot injection molding.

24. The package assembly according to any of claims 19, 20, 22 or 23, wherein the base (1) comprises for providing a save standing at least one means of the group of : a suction means, a microreplicated surfaces, a glue or pressure sensitive adhesive surface, a magnetic surface, and the foil seal (6) comprises a sticky, microreplicated and/or elastic surface.

25. The package assembly according to any of the preceding claims, wherein the first and/or second lever means (12;32) comprise(s) a fixation means (7) for attaching the second lever means (32) to the first lever means (12) and to ensure that the lid means (3) stays open after having been opened.

26. The package assembly according to claim 25, wherein the fixation means (7) comprises a recess (15) and a clip device (35) for preferably releasably engaging the clipper with said recess (15).

27. The package assembly according to claim 25, wherein the fixation means (7) comprises a fork at one lever means and a snapper (35) at the other second lever means for preferably releasably engaging said snapper (35) with the fork.

28. The package assembly according to claim 25, wherein the fixation means (7) comprises an engaging means at the first and/or second lever means (12, 32) for engaging with an edge of one of the lever means (12; 32).
29. The package assembly according to claim 25, wherein the fixation means (7) comprises sticky glue or pressure sensitive adhesive for attaching the first and second lever means (12, 32) together.
30. The package assembly according to any of the preceding claims, wherein the package comprises a disposable applicator (50).
31. The package assembly according to claim 30, wherein the applicator (50) is attached to the package assembly via a clamp (51).
32. The package assembly according to any of the preceding claims, wherein the package is designed for two- or multi-component substances.
33. The package assembly according to any of the preceding claims, wherein the container means (2) comprises at least two containers (201; 202).
34. The package assembly according to claim 33, wherein the at least two containers (201; 202) are arranged adjacent to each other.

35. The package assembly according to claim 33 or 34, wherein the at least two containers (201, 202) are provided separately with independent openings.
36. The package assembly according to any one of claims 33 to 35, wherein the at least two containers (201, 202) comprise one common lid (3).
37. The package assembly according to any of claims 33 to 35, wherein the common lid is T-shaped, in case the two containers are arranged side by side, and allows a sequentially activation of the containers.
38. The package assembly according to any one of claims 33 to 35, further comprising an area adapted for swabbing a brush or a mixing cavity for mixing components with a brush.
39. The package assembly according to claim 38, wherein the mixing cavity is part of the container means (2) and is re-closable by the lid (3).
40. The package assembly according to any of the preceding claims, wherein the lid (3) comprises a second container means (20) adapted for storing a substance (52).
41. The package assembly according to claim 39, wherein the second container means (20) and/or the lid (3) comprises a bore (9) adapted for connecting the capacity

of the container means (2) with the capacity of the second container means (20) of the lid (3) for dispensing the substance (52) into the container means (2).

42. The package assembly according to claim 40, wherein the bore (9) is sealed by a base foil (81) of a sachet (8).

43. The package assembly according to claim 41, wherein upon activation the base foil (81) of the sachet (8) will rupture at the bore (9) for dispensing the additional substance (52) into the container means (2).

44. The package assembly according to any of the preceding claims, wherein all parts are molded in a one-shot technique.

45. The package assembly according to any of the preceding claims, wherein the materials for the molded parts comprise polypropylene (PP) and/or cyclo-olefine-copolymers (COC).

46. The package assembly according to any of the preceding claims, wherein for transparent appearance of the package an orange coloring to filter blue light is used.

47. The package assembly according to any of the preceding claims, wherein the container is sealed with a foil (10).

48. The package assembly according to any of the preceding claims, wherein the lid (3) and/or container comprise a self-cleaning or low energy surface, preferably all surfaces which are supposed to get in contact with the components.

49. Method for providing dental substances, comprising the steps of:

- a) providing a package assembly according to any of the previous claims,
- b) opening the initial closed package assembly by pressing the two levers (12; 32) together, and
- c) taking the substance out of the container.

50. Method for providing dental substances according to claim 49, comprising before step b) the further step:

- a1) pressing the lid (2) in the direction of the container means (2) for breaking the seal (5).

51. Method for providing dental substances according to claim 49 or 50, comprising after step c) the further the step:

- d) closing the container means (2) by pressing the lid (3) onto the container means (2).

52. The assembly according to any of the respective preceding claims, further comprising at least one of the following materials: dental primers; bondings; etching gel/liquids; filling materials, such as composites, resin modified glass ionomer

cements; temporary filling material; varnishes; glue, such as cyanoacrylate; pharmaceuticals, such as liquids, gels, pastes; varnishes; nail polish; touch up paints; cosmetics, such as lip gloss; a substance for the treatment or prevention or identification of caries; a substance for the prevention or identification or removal of plaque; a substance for root canal treatment; a substance for the removal of carious or decayed or infected dentine or enamel and/or a substance for the removal of denaturated dentine.

53. Kit with an assembly according to any one of the respective preceding claims further comprising at least one of the following members: dental instruments, such as excavators, in particular disposable dental instruments; brushes, particularly of different sizes and hardnesses; disposable cartridges so that the system can be used as a refillable system; gloves and/or at least any one of the materials according to claim 52; and/or bonding and/or etching agent/gel.

54. Use of a package assembly, a method and/or a kit according to any of the respective preceding claims for storing and/or delivering dental substances.